Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

Conditional Major permit No. F-05-029
ENGINEERED POLYMER SOLUTIONS INC
D/B/A VALSPAR COATINGS
BOWLING GREEN, KY.
September 30, 2005
SUKHENDU K. MAJUMDAR, REVIEWER
Plant I.D. # 21-227-00111
SIC/Source: 2851
AI # 4123

STATEMENT OF BASIS:

SOURCE DESCRIPTION:

Engineered Polymer Solutions Inc. d/b/a Valspar Coating submitted a revised application for permit renewal that was received by the Division on February 3, 2004. Valspar Corporation has modified and expanded the coating manufacturing facility since the original renewal application received on June 5, 2002. The original permit was issued in 1995 as state permit. Since the expansion, Valspar Corporation has asked that a federally enforceable permit be written that requires Volatile Organic Compounds (VOC) and Hazardous Air Pollutant (HAP) control. This keeps their potential to emit VOC and HAP under the major source threshold. Valspar Corporation manufactures solvent based appliance and building coatings, ink and water based paints.

The Valspar Coating site is located at 347 Central Avenue, Bowling Green in Warren County, Kentucky. The processes performed at the Bowling Green facility includes the following:

1. Unloading of solvent and resin into receiving tanks.
2. There are nine common processes for solvent based appliances and buildings coating manufacturing: particulate loading, dispersion loading, dispersion mixing, product heat-up, grinding, letdown and mixing, product loading and filling.
3. Ink product manufacturing has dispersion loading, dispersion mixing and product filling.
4. Water based coating manufacturing.
5. Between each batch of product manufacturing, there is a cleaning phase to clean tanks and equipments. The cleaning process uses xylene as the cleaning agent.
6. Insignificant Activities are: Solvent storage tanks, Resin storage tanks and a boiler.

COMMENTS:

Type of control and efficiency

Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) Control

Valspar Coating has asked that a federally enforceable operating permit be written that requires VOCs and HAPs control. This keeps their potential to emit VOCs and HAPs under the major source threshold.

Emission Point	Type of Control	Control Efficiency
04A Particulate loading pigments	Two dust collectors	0.99

Emission factors and their source

Emission Point	Emission Factor	Source
04A Pigment loading	5.14 lb PM PM_{10}/ Ton raw material	Similar Plant dust collector data at NC
Appliance Coating Manufacturing	0.00497 lb HAPs/gallon product and 0.0128 lb VOC/gallon of products manufactured.	Engineering Estimate
Building Coating product manufacturing	0.0021 lb HAPs/gallon of product and 0.0061 lb VOC/gallon of product.	Engineering Estimate
Ink manufacturing	0.00152 HAPs/gallon of product and 0.00195 VOC/gallon of product.	Engineering Estimate
Water Based Coating manufacturing	0.00151 HAPs/gallon of product and 0.00818 VOC/gallon of product	Engineering Estimate

EMISSION AND OPERATING CAPS DESCRIPTION:

VOC and HAPS

Monthly Total for each HAP
The following formula shall be used to determine the emissions of each HAP at each emission point and from each material used unless an alternate demonstration method is approved by the Division.

Monthly Individual HAP Emissions (tons/hr) = $\sum_{n=1}^{N}$ [M_n x Emission $Factor_n$ x (1-CE_n)]/(1 ton/2000lbs)

Where the monthly individual HAP emissions are summed to include each material or release point for an individual HAP. M_n is the monthly amount of a material used in tons and Emission $Factor_n$ is the emission factor in pounds per ton for a particular HAP in the material or at a point. CE_n is the control efficiency of any controls operated at a given emission point that control the pollutant being considered. Any different or additional control efficiencies that are used must be pre-approved by the Division.

Consecutive Twelve (12) Month Total for each HAP
The monthly total for an individual HAP shall then be summed according to the following equation:

$$\text{Total Individual HAP Emissions} = \sum_{n=1}^{N} \text{Monthly Individual HAP Emissions}_n$$

Where the individual HAP emissions are summed over twelve (12) months.

Monthly Total for Combined HAPs
The following formula shall be used to determine the monthly total for combined HAP emissions.

$$\text{Monthly Combined HAP Emissions} = \sum_{n=1}^{N} \text{Monthly Individual HAP Emissions}_n$$

Where all HAP emissions are summed for an individual month.

Consecutive Twelve (12) Month Total for Combined HAPs

$$\text{Total Combined HAP Emissions} = \sum_{n=1}^{N} \text{Monthly Combined HAP Emissions}_n$$

Where monthly combined HAP emissions are summed over twelve (12) months.

Monitoring and Recordkeeping Requirements:

The following records shall be maintained.

- Monthly production records for all materials containing HAPs.
- The monthly calculated HAP emissions for each HAP.
- Consecutive twelve (12) month emission totals for each HAP.
- The monthly calculated combined HAP emissions.
- Consecutive twelve (12) month emission totals for combined HAPs.
- Monthly total non-fugitive VOC emissions from the facility.
- Consecutive twelve (12) month total for non-fugitive VOC emissions.

Specific Reporting Requirements:

A report of the consecutive twelve (12) month totals of VOC, HAP emissions for each HAP and combined HAPs shall be submitted every six months in accordance with Section F. 5. and F. 7. e. A report of any exceedance of the VOC or HAP emissions limitations shall be submitted within thirty

days of when the exceedance is determined.

PM and PM_{10}
Specific Monitoring Requirements:

The permittee shall visually check for emissions from each bag house and/or filter discharge stack on a daily basis and record whether or not there are visible emissions in an operating log.

Specific Recordkeeping Requirements:

The permittee shall maintain a written log of the daily pressure drop for each bag house and/or filter and make sure log available for inspection by Division personnel upon request. The log shall indicate the name or initials of the person performing the pressure drop monitoring.

Visual checks, inspection results, bag and/or filter replacement, and operator training shall be recorded in an operating log which shall be kept current at all times.

Emission Limitations:

Visual checks, inspection results, bag and/or filter replacement, and operator training shall be recorded in an operating log which shall be kept current at all times.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.